

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for controlling a packet data service in a mobile communication network, comprising:

a plurality of radio network controllers, wherein each of said radio network controllers assigns a radio channel to a packet data service active terminal and controls a data service path for said active terminal; and

a location management unit that manages service state information, location information and connection information of said active terminal and transferring to a first one of said radio network controllers, medium access control layer state information and radio resource control information of said active terminal for a second one of said radio network controllers when said active terminal moves from the second one to the first one in a suspended state or a dormant state[[;]]

~~wherein, when said active terminal moves from a first one of said radio network controllers to a second one of said radio network controllers in a suspended state or a dormant state, medium access control layer state information and radio resource control information of said active terminal are maintained between said first and second radio network controllers under control of said location management unit.~~

2. (Original) The system of claim 1, further comprising a packet data node for maintaining a point-to-point protocol link with said active terminal through a serving one of said radio network controllers to process one of an incoming signal from said active terminal and an outgoing signal to said active terminal.

3. (Original) The system of claim 2, wherein said second radio network controller is adapted to receive packet data node routing information from said first radio network controller and transfer a node link message to said packet data node to notify the packet data node that said active terminal has moved to said second radio network controller.

4. (Previously Presented) The system of claim 1, further comprising a mobile switching center and a visitor location register, wherein said location management is provided to said mobile switching center and visitor location register.

5. (Original) The system of claim 4, further comprising a packet control function entity adapted to establish a virtual circuit between a serving one of said radio network controllers and one of a target one of said radio network controllers and a packet data node, wherein said packet control function entity is provided said mobile switching center and visitor location register.

6. (Original) The system of claim 1, wherein said suspended state is a state where a traffic channel, a power control channel and a radio resource control channel are released between said active terminal and a serving one of said radio network controllers, and wherein a radio link protocol state and a point-to-point protocol state are maintained between said active
5 terminal and said serving radio network controller; and

wherein said dormant state is a state where a radio connection is released between said active terminal and said serving radio network controller and only said point-to-point protocol state is maintained between said active terminal and a packet data node.

7. (Original) The system of claim 1, wherein said mobile communication network is an IMT-2000/PCS/cellular communication network.

8. (Currently Amended) In a radio communication network that includes a plurality of radio network controllers, a method for operating a mobile communication network, comprising:

a) ~~moving a packet data service active terminal from an old one of said radio
5 network controllers to a new one of said radio network controllers in at least one of a suspended medium access control (MAC) layer state and a dormant MAC layer state;~~

[[b)]] a) transferring MAC layer state information and radio resource control information of said a packet data service active terminal ~~from said~~ for an old radio network

controller to ~~said a~~ new radio network controller through a location management function entity
10 when said packet data service active terminal moves from said old one of said radio network
controllers to said new one of said radio network controllers in at least one of a suspended state
and a dormant state; and

c) ~~maintaining~~ b) synchronizing said MAC layer state information and radio
resource control information of said packet data service active terminal between said old and
15 new radio network controllers.

9. (Original) The method of claim 8, wherein the location management device is in
a mobile switching center and provides radio packet data service.

10. (Currently Amended) A method for controlling a packet data service in a mobile
communication network of a radio communication network that includes a plurality of radio
network controllers, at least one location management function device and a packet data node
to provide a radio packet data service, the method comprising:

a) ~~allowing a packet data service active terminal to move from a current one~~
~~of said radio network controllers to a target one of said radio network controllers under the~~
~~condition that only a point-to-point protocol state is maintained between said active terminal and~~
~~said packet data node;~~

~~_____ b) allowing said active terminal to detect a received pilot signal and check a system overhead message;~~

~~_____ c) allowing said active terminal to determine~~ a) determining whether to perform a idle handoff operation at a suspended state at a packet data service active terminal;
[[and]]

~~d) allowing said active terminal to request said current~~ b) requesting a serving radio network controller to ~~permit its change~~ a state to one of a dormant state and an active state when the determination is that said packet data service active terminal is to perform the handoff operation in said suspended state at the packet data service active terminal; and

c) transferring, at the location management function unit, radio link protocol state information and radio resource control information of said packet data service active terminal for said serving radio network controller to a target radio network controller if said packet data service active terminal is changed to said dormant state.

11-13. Canceled.

14. (Original) The method of claim 10, wherein the location management function device is in a mobile switching center.

15. (Original) The method of claim 10, wherein the mobile communication network is an IMT-2000/PCS/cellular communication network.

16. (Previously Presented) The system of claim 1, wherein a handoff is initiated from the first radio network controller to the second radio network controller responsive to said movement of said active terminal to control of the second radio network controller in the suspended state or the dormant state.

17. (Canceled)

18. (Currently Amended) The system of claim [[17]] 16, wherein said active terminal in said suspended state is transferred to one state of ~~said~~ an active state and said dormant state responsive to the location management unit before said ~~inactive~~ handoff.

19. (Previously Presented) The system of claim 1, wherein a handoff is initiated from the first radio network controller to the second radio network controller responsive to a status change caused by said movement.

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20. (Previously Presented) The method of claim 8, wherein the moving a packet data service active terminal is responsive to a status change caused by movement by the active terminal to an area controlled by said new radio network controller.